

February 10, 2010

## ANIMAL CARE AND USE PROGRAM

### Occupational Health and Safety for Personnel with Exposure to Research Animals

1. **PURPOSE:** To provide guidelines designed to facilitate the provision of a safe workplace and safe work practices for personnel working in an animal research setting. These guidelines provide a basis for meeting the accepted occupational safety requirements for this type of work.

2. **POLICY:** All personnel engaged in the care and use of research animals will comply with a program for personal hygiene, protective safety measures, safe use of hazardous materials, and preventive Health. This policy applies to VA salaried employees and on-site Without Compensation (WOC) employees; WOC appointees located off-site will utilize the Environmental Health and Safety Department at their institution of salaried employment (e.g., university affiliate).

3. **RESPONSIBILITY:** Investigators are responsible for ensuring all employees adhere to these guidelines.

4. **ACTION:**

a. **PREVENTIVE HEALTH PROGRAM (PMP) FOR PERSONNEL WITH DIRECT PHYSICAL CONTACT OR ROUTINE EXPOSURE TO LIVE ANIMALS, ANIMAL TISSUES OR BODY FLUIDS.**

Personnel with direct physical contact or routine exposure to live animals, animal tissues or body fluids will participate in the PMP for employees with animal contact or routine exposure including:

(1) **Medical Evaluation.** A pre-placement evaluation and medical history ensures that a prospective new employee is capable of safely performing the functional requirements of the position and is sufficiently protected from physical hazards of the work.

(2) **Annual Tuberculosis screening.** If the test is positive, further tests (e.g., chest x-ray) or follow-up will be determined by the Occupational Health Physician.

(3) **Baseline Review by the Occupational Health Physician.** Upon hire, the research assistant or principal investigator will complete the base line survey (attachment 1) and supervisor or principal investigator certification (Attachment 2) provided on the Research Service intranet under "new employee". The individual (VA employee or WOC employee working in the VA) will make an appointment with the Occupational Health clinic located on the first floor Room 127, for review of the completed documents by the Occupational Health Physician. The same procedure is arranged for VA WOCs working at the University of Texas Health Science Center (UTHSCSA); however, they will make an appointment with Environmental Health & Safety Department, Dental Bldg, first floor, Room 1.343T. The Occupational Health Physician will review the baseline questionnaire and upon completion sign the certification page. The certification page will then be returned to the IACUC administrator for filing. EMS and Engineering will maintain the certification page for maintenance and housekeeping staff.

(4) **Periodic Animal Exposure Questionnaire.** Annually a periodic animal exposure questionnaire (Attachment 3) will be sent electronically to principal investigators and research assistants for completion. This form will be hand-delivered to Occupational Health (VA employees and WOC working in the VA), Room 127 for review by the Occupational Health Physician who will determine if an appointment is necessary. All WOC researchers working at UTHSCSA will hand-deliver their completed questionnaire to Environmental Health & Safety Department, Dental Bldg, first floor, Room 1.343T.

(5) Protective immunizations (e.g., tetanus, rabies) should be provided at appropriate intervals in accordance with CDC recommendations.

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(6) **Occupational Safety Training.** Personnel who have contact with experimental animals should receive training in the proper handling of the animals that they will work with. Most animal inflicted injuries occur because of inadequate training and experience, or because of carelessness. Personnel are instructed to avoid unnecessary risk when working with animals, and to seek expert assistance when in doubt. Training includes the use of protective clothing, equipment, practicing good hygiene, and standard precautions, where applicable. Personnel whose work responsibilities require that they lift heavy objects should be trained in proper lifting technique. The safety office, in coordination with the VMU supervisor, will develop an awareness slide presentation to be incorporated into annual EMS site specific training.

b. **PREVENTIVE HEALTH PROGRAM FOR PERSONNEL WITH INCIDENTAL EXPOSURE TO ANIMAL HOUSING AREAS:** Personnel that have incidental exposure to animal housing areas, such as Engineering or Environmental Management Services personnel, will receive an educational sheet (Attachment 4) that informs them of the potential for allergy to animal dander. The information sheet, which will be provided by the Research Service office prior to the individual being given access to the restricted VMU area, will instruct personnel who have pre-existing animal allergies, or who may develop allergy symptoms after exposure to the animal housing area, to seek consultation from the Occupational Health Physician. The Occupational Health Physician will determine if the employee needs further evaluation or intervention.

c. **REPORTING AND TREATMENT OF INJURIES AND ILLNESS.** Injuries, animal bites, animal scratches, and cuts sustained in the animal facility or research laboratory should be reported promptly to the employee's supervisor who will assist the employee in completing the Report of Accident. An accident should routinely be reported to the employee's supervisor.

(1) VA employees treated for a non-emergency injury or illness must file a claim with the Worker's Compensation to be seen by the VA Occupational Health Clinic (Form CA-1 or CA-2).

(2) WOC employees must contact the University of Texas Science Center of San Antonio (UTHSCSA) Employee Health Clinic for care after reporting non-emergency injury to their supervisor.

(3) Emergencies regardless of status are treated until stabilized by the VA Occupational Health Clinic or Emergency Services Department provider.

(4) Depending on status, i.e., WOC or VA employee, suspected work related illness should routinely be reported to the supervisor before consulting the appropriate Worker's Compensation Office.

d. **PERSONAL HYGIENE.** An important factor in protecting the health of personnel engaged in animal care or research is personal hygiene. All employees need to understand the importance of personal hygiene and specific measures that are to be taken routinely to protect themselves against zoonotic agents found naturally in experimental animals as well as hazardous agents used experimentally in approved biomedical animal studies.

(1) **Hand Washing.** Hand washing is a crucial safety measure for safeguarding personnel in the animal facility. Although the proper use of disposable gloves provides an effective means of preventing hand contamination, hands can easily become contaminated during the removal of contaminated gloves. Hands should be washed thoroughly with soap and water whenever they touch contaminated or potentially contaminated surfaces, liquids, or body fluids. Employees will wash hands before eating, drinking, applying cosmetics, touching contact lenses, and when departing the animal or laboratory facilities. Soap and paper towels will be located near sinks.

(2) **Smoking, eating, drinking, and cosmetic application.** Smoking, eating, applying cosmetics, installing contact lenses and similar procedures are prohibited within the animal facility or in animal study areas except in designated areas that are free from potentially contaminated materials. A designated break room is available within the VMU for eating and drinking. Employees will store food in refrigerators and/or freezers designated exclusively for such use in rooms U235 and T202. Smoking is prohibited in federal building except in designated outside smoking areas. Personnel who smoke should wash their

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hands prior to smoking. Signs are posted throughout the animal and laboratory facilities instructing personnel on the prohibition of eating, drinking, and smoking.

### e. PROTECTION.

(1) **Veterinary Medical Unit Animal Care Personnel:** Veterinary Medical Unit (VMU) employees will wear provided protective clothing. Uniforms and laboratory coats should be laundered to provide clean protective clothing daily. Disposable protective items such as gloves, masks, head and foot covers, and gowns or other body cover will be worn when required. Protective clothing may not be removed from the work site.

(a) **Uniforms.** Upon arrival at the duty site, animal care personnel should change from street clothing into clean protective clothing. Uniforms will be changed when they become soiled. At the end of the work day, uniforms should be placed in the designated soiled clothing hamper inside VMU room R225.

(b) **Lifting.** Employees should always practice safe lifting techniques. Tasks should be made as ergonomically efficient as possible.

(c) **Foot Injuries.** Employees who are at risk of crushing foot injuries from heavy objects will wear protected, hard-toe footwear.

(d) **Soiled Clothing.** Soiled clothing will not be worn outside the animal facility and never carried home. Refer to para (a)(1) for proper disposition of soiled clothing.

(2) **Research and Other Personnel with Animal Contact.** Protective clothing needs depend on the procedures that will be performed, but as a minimum, clean lab coats and gloves will be worn by all personnel handling animals or animal tissues. Protective equipment (e.g., gowns, masks, respirators, eye shields, etc.) will be made available to investigators by the VMU for use as appropriate. For those individuals with allergies to animals, a respirator with appropriate cartridges may be worn in place of surgical-type mask after medical evaluation at occupational health and fit testing by Industrial Hygiene officer. Reassignment to duties that prevent exposure may be recommended in certain cases.

### (3) **General Considerations.**

#### (a) Disposable Gloves

1. Disposable gloves are useful to prevent the transmission of diseases between animal rooms, and to limit the possibility of disease transmission between animals and humans. They are also useful to limit staff exposure to contact allergens. Disposable gloves are available for caretakers and research personnel who contact animals, animal tissues, or soiled animal cages during their duties.

2. Disposable gloves should be discarded when they are visibly soiled, torn, punctured, or otherwise damaged such that their ability to act as a barrier is compromised. Prior to leaving an animal room or anteroom, personnel should discard their gloves and wash their hands. Care is needed to prevent contamination of door knobs, faucet handles, paper towel dispensers, refuse container lids, and similar objects by personnel with contaminated gloves. Some personnel may develop contact dermatitis allergy to the absorbent material that is used to lubricate disposable gloves; however, alternative lubricants are available.

(b) **Hearing Protection.** The noise level in animal facility areas may reach potentially damaging levels, particularly in cage washing areas. Ear protection shall be worn to prevent hearing damage. The Industrial Hygienist conducts noise test levels in compliance with the Occupation Safety and Health Administration (OSHA) regulations or whenever requested by an employee. Ear protection shall be worn in areas where noise levels exceed OSHA permissible exposure levels. If protective headset-style protectors are too bulky or uncomfortable, inexpensive disposable foam ear plugs may be used. The VMU Supervisor shall enforce use of required ear protection.

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(c) **Eye Protection.** Protective eyewear should be used by employees who handle corrosive or otherwise dangerous liquids or vapors. Goggles or other devices must completely shield the eyes.

(d) **Other Precautions.** Personnel should be trained to avoid hand contact with their eyes, face, mouth, or other bodily surfaces with contaminated gloves or non-sanitized hands.

(e) **Special Circumstances.** Special equipment and clothing may be required when personnel are engaged in studies that involve hazardous agents. The specific measures taken depend on the agents used, as determined by the Safety Officer in consultation with the investigator and the Veterinary Medical Consultant (VMC).

### f. HAZARDOUS AGENTS

#### (1) Work with Hazardous Agents.

(a) **Scope.** Additional safety measures may be needed to protect personnel who use or work in the animal facility when research involving biological, chemical, or radiological agents is being conducted. The specific measures needed are dependent on the risk to human and animal health represented by the agent, and the difficulty involved in containing the agent.

(b) **Objective.** The objective is to prevent animal care staff and other animal workers from exposure to hazardous agents present in animal tissues, animal secretions, soiled bedding, and elsewhere in the animal environment. The key elements to safety when working with hazardous agents are:

1. Trained, knowledgeable personnel to perform the study, and
2. Prior review and approval of the proposed use of hazardous agents by the hospital safety office.

#### (c) Procedure.

1. Before experimental animals are treated with any hazardous agent, an approved copy of the Animal Component of Research Protocol with written safety precautions must be on file in the Research Office. This should include instructions on handling animals, caging, and animal waste.

2. Instructions should be posted outside the animal room where they are readily visible for the duration of the experiments.

3. Personnel who work with animals exposed to hazardous agents are to be trained by their supervisor in proper procedures in working with the animals and related waste and equipment. Documentation of such training needs to be made before employees manipulate experimental animals treated with hazardous agent(s).

(d) **Biological Agents.** The Centers for Disease Control and Prevention (CDC)/National Institutes of Health (NIH) handbook, "Biosafety in Microbiological and Biomedical Laboratories," describes the minimum containment requirements that are to be followed when microbial pathogens are used in the laboratory and in the animal facility. A copy of the most recent edition of this manual is available at <http://www.cdc.gov/biosafety/publications/bmbl5/index.htm>.

#### (e) Special Considerations.

1. Immunologically compromised rodents such as the nude mouse and the severe combined immuno-deficient (SCID) mouse, that receives human xenografts, body fluids, blood, or human infectious agents and related materials, present a potentially unique and poorly understood (xenozoonosis) risk. These rodents may develop persistent infections while remaining otherwise healthy. For this reason,

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such animals injected with these materials need to be handled with caution, following Biosafety Level 2 practices in accordance with the recommendation of the Safety Officer.

2. Standard Precautions. Standard Precautions is an approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and other blood borne pathogens. Intended primarily for personnel working directly with human blood components, other body fluids and excreta, and unfixed tissues, Standard Precautions are relevant to all personnel working with potentially infectious materials in animal studies. Personnel working with animals treated with such materials will receive annual training in Standard Precautions to comply with the Blood borne Pathogen Standard.

### (2) Chemical Agents and the Material Safety Data Sheet.

(a) Although all chemicals and drugs are potentially dangerous, special concern is necessary when working with known carcinogens, mutagens, immunosuppressive agents, toxic drugs, potent steroids, agents of unknown pharmacological activity, and other chemicals listed as hazardous waste by the Environmental Protection Agency (EPA).

(b) All chemical agents purchased commercially are to have a Material Safety Data Sheet (MSDS) that accompanies the shipment. Purchasing offices should forward the MSDS immediately to the Research Office from where it should be distributed to the investigator in the animal facility. All investigators must have a hardcopy MSDS, as a backup for failure of the on-line desktop graphical user interface, for all chemicals available in their laboratory. For chemicals used within the VMU, MSDS paper copies are maintained in U235.

(3) Radioactive Agents. The safety principles for work with radionuclides are similar to those for work with other hazardous agents with some important additions:

(a) The Radiation Safety Officer must review and approve, or require specific procedures to be followed when using radionuclides in animals.

(b) Personnel must be trained to work with radionuclides.

(c) All acquisition and disposition of radionuclides must be in accordance with the Nuclear Regulatory Commission (NRC) regulations.

### (4) Procedures for the Animal Care Staff.

#### (a) Warning Signs and Safety Protocol for Animal Rooms that Contain Hazardous Agents

1. Appropriate PPE for entering room will be posted on the entrance door.

2. The following information should be posted on the animal room door for the duration of the experiments:

a. Large biohazard, chemical hazard, or radiation hazard sign, as appropriate, and a limited access warning sign.

b. Name and telephone number of individual to contact in event of an emergency involving the agent.

c. Name of the hazardous agent(s).

d. Dress code for entrance into the room.

(b) Separation of Animals Treated with Hazardous Agents. Animals receiving hazardous agents should be housed separately from other animals to prevent cross contamination and simplify isolation of

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contaminated wastes. The use of negative-pressure ventilated racks, laminar flow units, and other similar high efficiency particulate air (HEPA)-filtered devices are helpful in isolating small animals exposed to hazardous agents.

(c) Warning Signs on Animal Cage Cards. The name of the hazardous agent should appear on the cage cards of animals treated with the agent. Each cage should display a Biohazard sign (tape or label).

(d) Cleaning, Feeding, and Watering Animals Treated with Hazardous Agents

1. If both treated and untreated animals are housed in the same room, the untreated animals should be cleaned, fed, and watered first to reduce the possibility of accidental contamination to them. Rooms housing treated animals should be cleaned last and animals in these rooms fed, watered, and manipulated after these procedures have been completed in other rooms.

2. Upon completion of a study involving use of infectious or other hazardous material, the room housing animals exposed to such agents should be decontaminated before introduction of new animals. If necessary, the Safety Officer will be consulted to determine the best method to decontaminate the room. The decontamination method will vary depending on the hazardous agent in use and cannot be generalized. It is important that personnel performing the decontamination are knowledgeable about their task and provided protective clothing as indicated by the Safety Officer.

(e) Use of a Bedding Change Station or Biocontainment Hood to Change Bedding: A device that draws aerosols away from the caretaker, such as an air filtered change station will be used when soiled, contaminated bedding is removed from animal cages. The caretaker should wear protective clothing, including a mask and gloves when removing soiled bedding from cages. Soiled bedding will be removed from cages in room R205, which is dedicated for this purpose.

### (5) Waste Disposal.

(a) Bedding. Bedding contaminated with hazardous agents may present one of the most difficult management problems. Contamination with infectious agents may require that bedding be sterilized before being transported to the cage wash room for dumping. If soiled bedding containing hazardous material cannot be rendered harmless prior to transporting to the cage wash room, it may be necessary to bag, or double bag the bedding for direct transportation to the autoclave located in room R205. Regardless of the nature of the contamination, the methods of disposal should be determined by the Safety Officer.

(b) Carcass Disposal. Contaminated carcass disposal is often similar to disposal methods for other contaminated materials, but in this case needs to reflect the nature of the hazardous agent in use. Upon completion of the necessary work with the carcass, it should be bagged, labeled, and autoclaved before disposal. Holding, when necessary, should be accomplished in a refrigerator in room U238.

### (6) Miscellaneous Safety Procedures for All Personnel.

(a) Needle and Syringe Disposal. Needles should not be recapped. Needles and syringes will be disposed of by dropping them into puncture proof containers located in every room in which sharps are used. In some instances, neutralization of the hazardous agent prior to discarding of the syringe containing such material may be necessary. Safety needles should be used in accordance with OSHA regulations when handling potential blood borne pathogens.

(b) Adequate Animal Restraint. The chance of accidental needle sticks is reduced if animals are anesthetized or chemically restrained before being injected with hazardous agents. Manually restrained, unanesthetized animals are often capable of jarring needles and redirecting their path by struggling, causing accidental needle stick.

(c) Prevention of Aerosol Formation. Whenever possible, hazardous agents should be prepared or purchased in rubber-topped vials so that the aerosols associated with open tube manipulations can be

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minimized. Solutions containing hazardous agents should never be expressed through a needle into disposal containers or disinfectant pans because of the aerosols produced; rather the syringe with solution should be discarded directly into an appropriate puncture proof sharps container.

1. When infectious agents are used, the sharps container should be sterilized in a steam autoclave before disposal.

2. When hazardous agents require disposal by incineration immediately after use, the sharps container should be included with the disposition.

(d) Use of Hoods. Hazardous agents should be injected or otherwise administered within an appropriate biocontainment or chemical hood. When technical considerations make such a practice impossible, exceptions will be justified and approved by the local VA Safety Committee.

(e) Manipulating Animals. When manipulating animals, the fewer manipulations that a single individual performs when handling hazardous agents, the better. Should an accident occur, it is much safer to have a second person available to assist in decontamination procedures, and to audit the accident. People working alone are often reluctant to acknowledge mistakes or accidents.

(f) Reduce Distractions. When hazardous agents are being manipulated in the animal facility, distraction should be minimized. Research personnel should schedule with the animal care staff a time for manipulations so that routine cleaning and husbandry procedures can be avoided, postponed, or rescheduled. Loud noises should be minimized.

### g. SPECIAL CONSIDERATIONS

(1) Special Health Considerations for Female Employees. Occupational hazards that are significantly detrimental to pregnant women and the unborn child are to be considered. Women who are pregnant and work with animals that are exposed to hazardous agents should declare their pregnancy to their supervisor as early as possible, and are to be made aware of potential risks in consultation with the Occupational Health Physician, and/or the medical center Safety Officer and Radiation Safety Officer as appropriate.

(2) Special Zoonotic Animal Diseases. Some zoonotic diseases that may pose a risk for animal workers in the typical animal facility are described briefly in the following. Work with primates requires special attention to occupational health and safety requirements. Protective clothing plus masks, gloves, head and face shield or goggles should always be worn when personnel are in non-human primate housing rooms or when working with non-human primates.

(a) Rabies. While human rabies is now a rare disease in the United States, it is almost invariably fatal and thus needs to be considered when working with animals that pose a potential threat to workers. Rabies is usually transmitted when the virus is introduced into open cuts or wounds in skin or mucous membranes. Exposure may be from bites by an infected animal or much less frequently through scratches, abrasions, open wounds, or mucous membranes contaminated with saliva or other infectious material.

1. Vaccination is the most valuable preventive measure, and local wound treatment and vaccination should follow potential exposure as directed by the Occupational Health physician. Historically, dogs are the most common vector of rabies infection to humans. The incidence of rabies in dogs in the United States is now very low, while rabies in wild animals - especially skunks, raccoons, and bats - is much more commonly recognized. Personnel who have contact with dogs, cats, other carnivores, wild mammals, and susceptible species of bats (or their tissues) should be advised to receive pre-exposure immunization against rabies.

2. Pre-exposure immunization does not eliminate the need for prompt post-exposure evaluation and possible prophylaxis.

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3. Immunized workers may receive booster vaccinations or measurement of rabies antibody titer to insure on-going baseline immunity.

(b) Rat Bite Fever. Two causes are recognized: *Streptobacillus moniliformis* and *Spirillum minus*. The disease is usually associated with wild rodent bites, but rarely with laboratory bred rodents. In humans, the disease is characterized by an abrupt onset of chills, fever, headache, and muscle pain, followed shortly by a maculopapular or sometimes petechial rash. The primary wound usually heals promptly, but after an incubation period of about 10 days, systemic signs appear. A 7 to 10 day course of penicillin or tetracycline is recommended for treatment of the disease.

(c) Dermatomycoses. The most common causes of dermatomycosis in humans acquired from animals are *Trichophyton* spp., and *Microsporum canis*. Cats, rats, cattle, and guinea pigs are the most common sources, and may not exhibit clinical signs of disease. Personnel who develop circumscribed, intensely itching lesions that are non-responsive to ordinary household remedies on exposed parts of their bodies should be examined for dermatophytes.

(d) Other Zoonotic Diseases. Other zoonotic diseases to which animal workers may be exposed are potentially endless, but includes:

1. Bacterial diseases such as: *Tularemia*, *Salmonellosis*, *Shigellosis*, *Brucellosis*, *Campylobacter*, *Helicobacter*, and many others.

2. Examples of virus diseases that occasionally infect animal workers include: *Hantavirus* (wild rodents), *Hepatitis A* (some primates and great apes), *Lymphocytic Choriomeningitis* (hamsters, rats and possibly mice), and *Contagious Ecthyma* (sheep).

3. Miscellaneous other zoonotic diseases that should not be overlooked include: *Psittacosis*, *Amoebiasis*, *Cryptosporidiosis*, and *Arthropods borne diseases*.

**NOTE:** Consideration to these possibilities should be given to animal workers with vague or otherwise poorly defined symptoms of infection.

### f. INFECTIOUS DISEASE RISK TABLE

Specific procedures required for the Occupational Safety and Health Program for the animal facility are dependent upon the degree and type of exposure to laboratory animals as well as the nature of the work being done. The following table summarizes a PMP with suggested procedures for four risk categories. Additional risk categories may be added by the medical center:

See complete table on next page.



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Risk Category	Definition	Pre-placement Physical	Annual Question-naire	TB Skin Test or Chest Radiograph	Rabies Vaccine or Serology	Tetanus Toxoid	Pre-placement and Annual Serum Banking	Toxoplasma Serology	Rubeola Vaccine	Q Fever Vaccine
1	Exposure to rodents or rabbits	++	++	o	o	++	o	o	o	o
2	Exposure to Carnivores (dog, cat, ferret)	++	++	o	+++	++	o	F + M o	o	o
3	Exposure to ruminants	++	++	o	+	++	o	o	o	+
4	Exposure To non-human Primates	++	+++	+++	+	++	+	o	+	o

**Key:** o: Not ordinarily required.

+: May be advisable in some circumstances.

++: Usual practice.

+++ : Essential component of an effective program.

M: Male

F: Female

**NOTE:** The occupational health program outlined in Table 5 of NIH Publication No. 92-3415 entitled *Institutional Animal Care and Use Committee Guidebook* may be a useful reference.

## (1) Other Consideration for working with anesthetic gases include:

(a) Non-Explosive Gases. Virtually all non-explosive anesthetic gases carry some degree of health risk to animal workers. Provision should be made to protect workers by the use of gas scavenging devices, or where appropriate, ventilated hoods or other systems that prevent exposure to the worker.

(b) Explosive Gases. The use of explosive anesthetic gases such as Ether needs to be approved up to the level of the Regional Safety Officer. Proper storage for these gases is to be provided, and the location of use needs to provide adequate ventilation and freedom from ignition sources.

(c) Personnel working with anesthetic gases are initially monitored by Passive Samplers for Organic Vapors and then as needed.

(2) Transportation. Transporting animals into or through areas used by patients or visitors is not appropriate. VMU supervisor should be contacted regarding appropriate transportation procedures.

## 5. REFERENCES:

- Barkley, W.E. and J.H. Richardson, "Control of Biohazards Associated with the Use of

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Experimental Animals, 1984" Laboratory Animal Health, J.G. Fox, B.J. Cohen, and F.W. Loew, editors, 595 – 602 in Laboratory Animal Medicine, Orlando, FL.

b. Heymann, D.L., Control of Communicable Diseases in Manual, 19th edition. (Washington, D.C.: American Public Health Association, 2008).

c. Biosafety in Microbiological and Biomedical Laboratories, 5th edition, U.S. Department of Health and Human Services, CDC and Prevention NIH, Revised December 2009.

d. Occupational Health and Safety for Veterinary Medical Units Program Guide, Title 10 Code of Federal Regulations (CFR) Chapter 1, Parts 0-171, Nuclear Regulatory Commission. See Part 20, Standards for Protection Against Radiation.

e. Guide for the Care and Use of Laboratory Animals, National Research Council, 1996, and subsequent revisions.

f. Title 29 CFR Parts 1900-1910 and 1920-End, OSHA, Occupational Safety and Health Administration.

g. Occupational Health, Institutional Animal Care and Use Committee Guidebook. U.S. Department of Health and Human Services, Public Health Service, (Washington, DC: NIH Publication No. 92-3415, 1992).

h. Title 40 CFR Part 261 Subpart D, Lists of Hazardous Wastes. Environmental Protection Agency.

i. VHA Handbook 1200.7.

j. VA Manual MP-3, Part III, Safety, Occupational Health and Fire Protection (or superseding document).

6. **RESCISSION:** Research Service Memorandum 06-17, dated May 11, 2006.



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### Attachment (4)

1. Baseline Medical History
2. Principal Investigator or Supervisor Certification
3. Periodic Animal Exposure Questionnaire

DISTRIBUTION: VMU, Investigators

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**Attachment 1**

**Animal Exposure Baseline History**

1. Name: \_\_\_\_\_ S.S.# (Last 4): \_\_\_\_\_
2. Date of Birth: \_\_\_\_\_ Male ☐ Female ☐ Pregnant ☐
3. Service: \_\_\_\_\_ Job Title: \_\_\_\_\_
4. Extension: \_\_\_\_\_ Pager: \_\_\_\_\_ E-mail: \_\_\_\_\_
5. Location Building and Room #: \_\_\_\_\_
6. Principal Investigator's name: \_\_\_\_\_ Pls Phone #: \_\_\_\_\_
7. Animal Contact with VA VMU or UTHSCSA facilities (check all that apply):
- |  |                                       |                                  |                                |
|--|---------------------------------------|----------------------------------|--------------------------------|
| <input type="checkbox"/> Dogs              | <input type="checkbox"/> Pigs         | <input type="checkbox"/> Cats    | <input type="checkbox"/> Sheep |
| <input type="checkbox"/> Nonhuman Primates | <input type="checkbox"/> Rodents      | <input type="checkbox"/> Rabbits |                                |
| <input type="checkbox"/> Guinea Pigs       | <input type="checkbox"/> Other: _____ |                                  |                                |
8. Total amount of contact time with animals (include contact with animal tissues, waste, body fluids, carcasses or animal quarters):
- ☐ More than one hour / week
- ☐ One or less hour / week
- ☐ Other (explain): \_\_\_\_\_
9. Does your work with animals involve any human or animal pathogens or infectious diseases?
- ☐ Yes ☐ No
- If yes, please list pathogens or diseases: \_\_\_\_\_
10. If you are in contact with nonhuman primates:
- a. Have you ever had Tuberculosis (TB)? ☐ Yes ☐ No
- If yes, please list medications and how long you took them: \_\_\_\_\_
- b. Have you been vaccinated with BCG for TB? ☐ Yes ☐ No
- Year \_\_\_\_\_
- c. Have you ever had a positive reaction to a TB test (Tine Test, PPD, Mantoux)?
- ☐ Yes ☐ No
- If yes, please name any medications you took and the length of time you took them: \_\_\_\_\_
11. Are you receiving immunosuppressive therapy such as prednisone, steroids or anti-cancer drugs?
- ☐ Yes ☐ No
12. How often do you wear Personal Protective Equipment when working with animals? (Check the appropriate responses)
- | <u>Type of PPE</u> | <u>Sometimes</u>         | <u>Always</u>            | <u>Never</u>             | <u>Rarely</u>            |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Gloves             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Gown               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mask               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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Cap ☐ ☐ ☐ ☐  
Goggles/Glasses ☐ ☐ ☐ ☐

13. Do you smoke, eat or drink in the animal areas? ☐ Yes ☐ No

14. How often do you do the following after handling animals at work?

	<u>Sometimes</u>	<u>Always</u>	<u>Never</u>	<u>Rarely</u>
Wash Hands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change clothing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Do you have a history of the following conditions? (Check those you have or have had)

☐ Hay fever ☐ Asthma ☐ Allergic skin problems ☐ Eczema  
☐ Sinusitis ☐ Other Chronic Respiratory Infections

16. Has anyone in your family ever had hay fever, asthma, eczema or allergic skin problems?

☐ Yes ☐ No

17. Do you have sneezing spells, runny or stuffy nose, watery or itchy eyes, coughing, wheezing, or shortness of breath, skin rash or hives, or difficulty swallowing after working with laboratory animals or their cages? (Circle those you have)

☐ Yes ☐ No

18. Which animals cause the above problems?

19. How frequently are you bothered by the symptoms below?

<u>Symptoms</u>	<u>Never</u>	<u>Monthly</u>	<u>Weekly</u>	<u>Daily</u>
Watery, itchy eyes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Runny or stuff nose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sneezing spells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequent dry cough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheezing in chest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rash or hives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trouble swallowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Do you have any house pets? ☐ Yes ☐ No

If yes, what type of animals do you have?

21. Do you have any symptoms with your pets?

If yes, what type of symptoms do you have?

22. Do you have a chronic respiratory disease? ☐ Yes ☐ No

If yes, please explain:

23. Have you ever had a hernia (rupture)?

☐ Yes ☐ No

If yes, please explain:

24. Have you ever had back trouble or pain that required treatment, surgery or loss of time at work?

☐ Yes ☐ No

If yes, please explain: ☐

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25. Do you have joint problems or any form of arthritis? ☐ Yes ☐ No  
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If yes, please describe:

26. Do you work with chemicals? ☐ Yes ☐ No  
Do you have symptoms from the chemicals? ☐ Yes ☐ No  
Comments:

27. Please note any other health history you consider significant:

28. Immunization / TB Screening History:

<u>Vaccine/Test</u>	<u>Date</u>	<u>Side Effect/Reaction</u>	<u>Other</u>
Tetanus (most recent)			
Rabies Series, Initial			
Rabies Booster			
Rabies Immune Globulin			
Hepatitis B Series, Initial			
Hepatitis B, 2 <sup>nd</sup> Series			
Tuberculin Mantoux (PPD)			
Other:			
Chest X-ray			

Signature of Employee: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: \_\_\_\_\_

Signature of Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: \_\_\_\_\_

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### Attachment 2

#### **SUPERVISOR/PI CERTIFICATION**

By signature, I certify that I have provided \_\_\_\_\_ with information regarding STVHCS Research Service Animal Care and Use Program, Occupational Health and Safety for Research Personnel with Significant Animal Contact operating instruction and the availability of Learning Management System Occupational Health training, course 32755. I have provided necessary training and a printed copy of the above program guide.

Printed Supervisor/PI Name:

Signature: \_\_\_\_\_

Date:

#### **OCCUPATIONAL PHYSICIAN**

By signature, I verify that I reviewed and discussed, with the participant, the submitted Occupational Health Questionnaire and potential risks associated with the involvement in animal-related research. The participant was offered medical services appropriate to the risks.

Printed Occupational Health Physician Name:

Signature: \_\_\_\_\_

Date:

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**Attachment 3**

**Periodic Animal Exposure Questionnaire**

Name: \_\_\_\_\_ SS#: (Last 4) \_\_\_\_\_

Job Title: \_\_\_\_\_ Extension: \_\_\_\_\_ Bldg/Room #: \_\_\_\_\_

1. I no longer work with animals (including animal tissues, waste, body fluids, carcasses or animal quarters) at the VMU. YES ☐ NO ☐ (If YES, skip to #4)

2. Show any CHANGE in animal contact within the VMU in the past year. Write a plus (+) for continuing contact; (++) for new animal contact; (-) for animals no longer working with.

\_\_\_\_\_ Dogs

\_\_\_\_\_ Pigs

\_\_\_\_\_ Cats

\_\_\_\_\_ Sheep

\_\_\_\_\_ Rabbits

\_\_\_\_\_ Rodents

\_\_\_\_\_ Guinea Pigs

\_\_\_\_\_ Nonhuman Primates

\_\_\_\_\_ Other

3. Check total amount of contact time with animals in the past year (include contact with animal tissues, waste, body fluids, carcasses or animal quarters):

☐ More than one hour / week

☐ One hour or less / week

☐ Other (explain)

4. List any additions or deletions of human or animal pathogens or infectious diseases you have worked with in the past year:

Additions:

Deletions:

5. List the date of your last TB screening: (Mantoux or TB Symptoms Checklist):

6. List date of Hepatitis B, Tetanus or Rabies immunizations received this past year:

Tetanus

Rabies

Hepatitis B

7. Check any condition(s) you have developed over the past year:

Hay fever ☐

Asthma ☐

Sinusitis ☐

Other Chronic Respiratory Infection ☐

Allergic skin Problems ☐

Eczema ☐

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Comments:

8. Check symptoms you developed this past year and how often you have them:

Symptoms	Never	Monthly	Weekly	Daily
Water, Itchy eyes				
Runny, Stuffy Nose				
Sneezing Spells				
Frequent Dry Cough				
Wheezing in chest				
Rash or hives				
Shortness of Breath				
Trouble Swallowing				

9. Do animals cause the above symptoms? If so, please list the animals:

10. List any NEW pets you obtained in the past year and symptoms you have with them.

New Pet	Symptom

11. List any medical problems, pregnancies, hospitalizations or surgeries:

Signature of Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name \_\_\_\_\_

Signature of Reviewer \_\_\_\_\_

Print Name \_\_\_\_\_

Physical : Recommended \_\_\_\_\_ Not Recommended \_\_\_\_\_



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### Attachment 4

#### Information Sheet: Risks of Exposure to Research Animals

The South Texas Veterans Health Care System Research Service maintains a veterinary medical unit (VMU), for the support of research studies. The VMU houses mice, rats, and hamsters used in the conduct of medical research. This information sheet is directed to those hospital employees that only occasionally or intermittently need to enter the VMU as part of their work.

Animals produce dander, which is loose scales of dried skin and secretions that are shed from the animal's fur. The dander gets into the air in small quantities, but can cause allergic reactions in people who are susceptible. Allergic reactions can occur without direct animal contact; for instance by walking in the hallways of the VMU. If you have a history of allergies to animals, or you had an adverse reaction after having entered the South Texas Veterans Health Care System animal facility in the past, you should discuss this with your supervisor and the Occupational Health Physician (Room 127; extension 14116) prior to entry into the VMU.

Allergic symptoms can include:

- \* Itchy or burning eyes
- \* Runny nose
- \* Congestion
- \* Sinus pressure
- \* Coughing
- \* Sore or scratchy throat
- \* Wheezing and chest tightness
- \* Breathing problems
- \* Itching skin
- \* Skin rash

If your work in the VMU will require entry into an animal housing room, you should also be aware that some animal rooms are identified as biohazard and require appropriate personal protective equipment to be donned before entry. The Veterinary Medical Unit Supervisor is available in U235 (extension 14687) will assist you with the appropriate PPE and entry into the restricted access room as needed

If you have any questions please contact the Associate Chief of Staff for Research and Development (extension 15123) or the Occupational Health Physician (extension 14116).